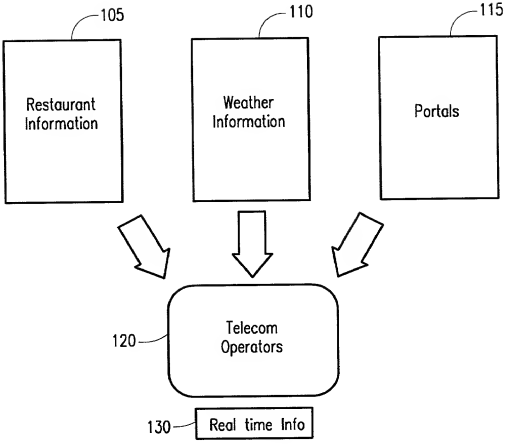
105
Restaurant Information
110
Weather Information
115
Portals
120
Telecom Operators
130
Real time Info

FIG. 1

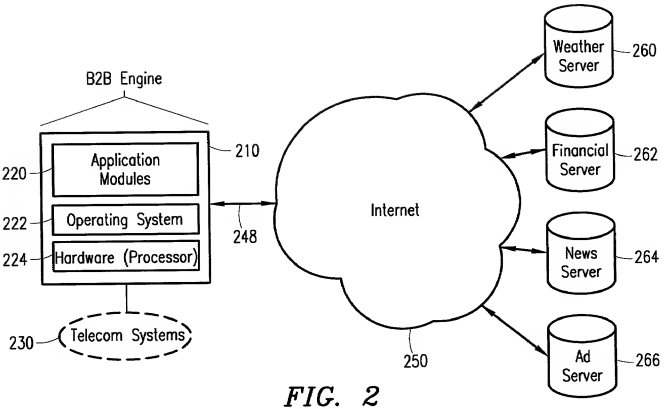
B2B Engine
Application Modules
Operating System
Hardware (Processor)
210
220
222
224
230
Telecom Systems
248
Internet
250
Weather Server
260
Financial Server
262
News Server
264
Ad Server
266

FIG. 2

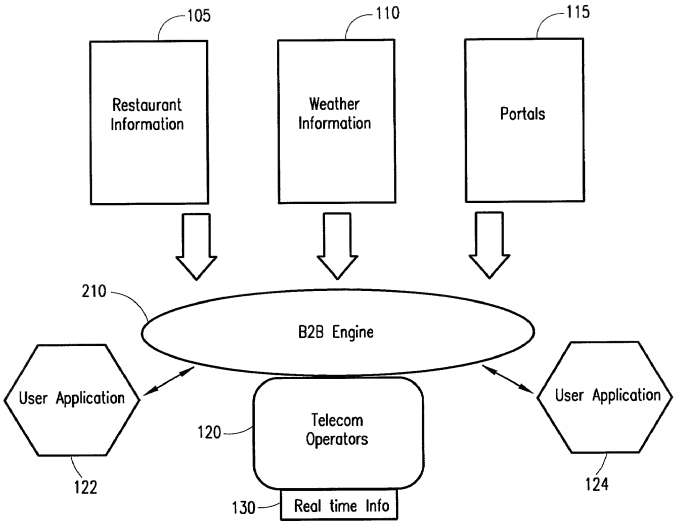
105
Restaurant Information
110
Weather Information
115
Portals
210
B2B Engine
User Application
122
120
Telecom Operators
130
Real time Info
User Application
124

FIG. 3

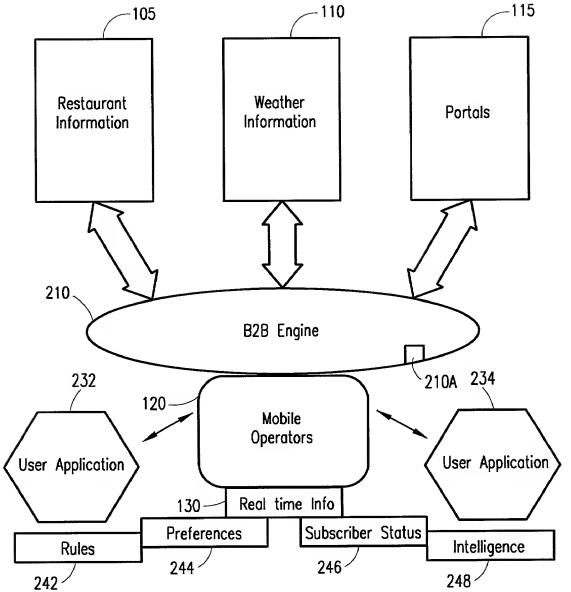
105
110
115
Restaurant Information
Weather Information
Portals
210
B2B Engine
210A
232
234
120
Mobile Operators
User Application
User Application
130
Real time Info
Rules
Preferences
Subscriber Status
Intelligence
242
244
246
248

FIG. 4

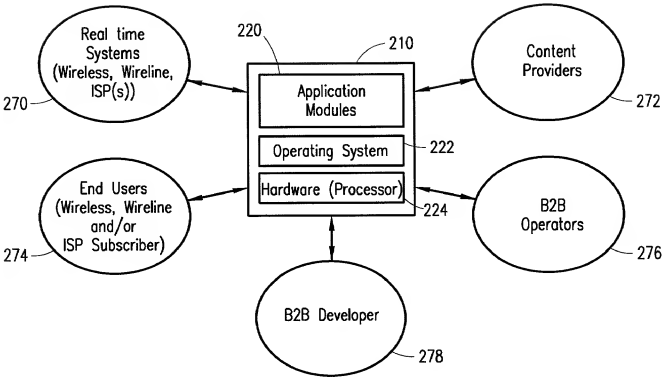
Real time Systems (Wireless, Wireline, ISP(s))
270
220
210
Application Modules
Operating System
222
Hardware (Processor)
224
Content Providers
272
End Users (Wireless, Wireline and/or ISP Subscriber)
274
B2B Operators
276
B2B Developer
278

FIG. 5

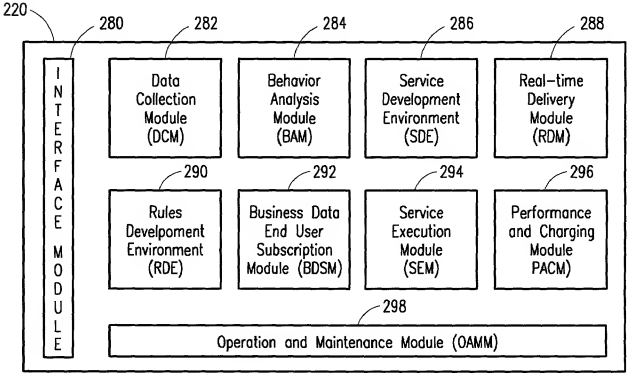
220
280
282
284
286
288
INTERFACE MODULE
Data Collection Module (DCM)
Behavior Analysis Module (BAM)
Service Development Environment (SDE)
Real-time Delivery Module (RDM)
290
292
294
296
Rules Develpoment Environment (RDE)
Business Data End User Subscription Module (BDSM)
Service Execution Module (SEM)
Performance and Charging Module PACM)
298
Operation and Maintenance Module (OAMM)

FIG. 6

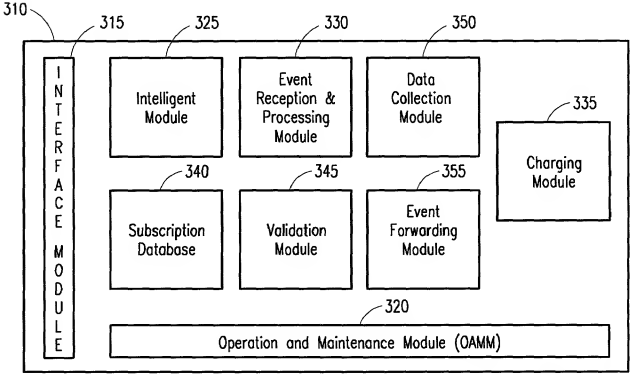

FIG. 7

09759942 054001

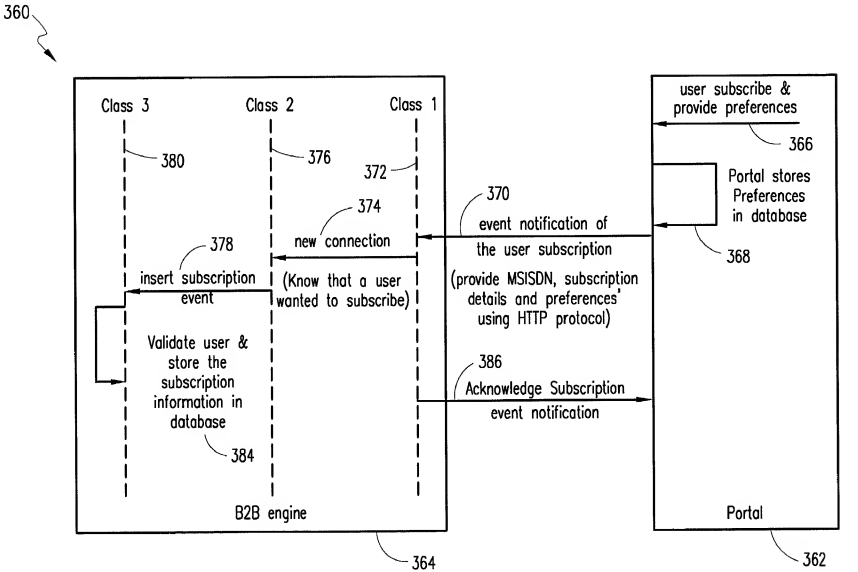
360
Class 3
Class 2
Class 1
380
376
372
374
new connection
378
insert subscription event
(Know that a user wanted to subscribe)
Validate user & store the subscription information in database
384
B2B engine
364
370
event notification of the user subscription
(provide MSISDN, subscription details and preferences' using HTTP protocol)
386
Acknowledge Subscription event notification
user subscribe & provide preferences
366
Portal stores Preferences in database
368
Portal
362

FIG. 8

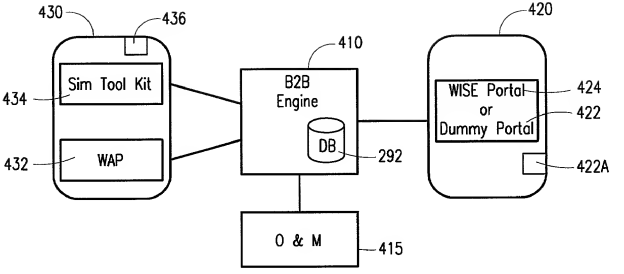

FIG. 9

T0015D: 2405560

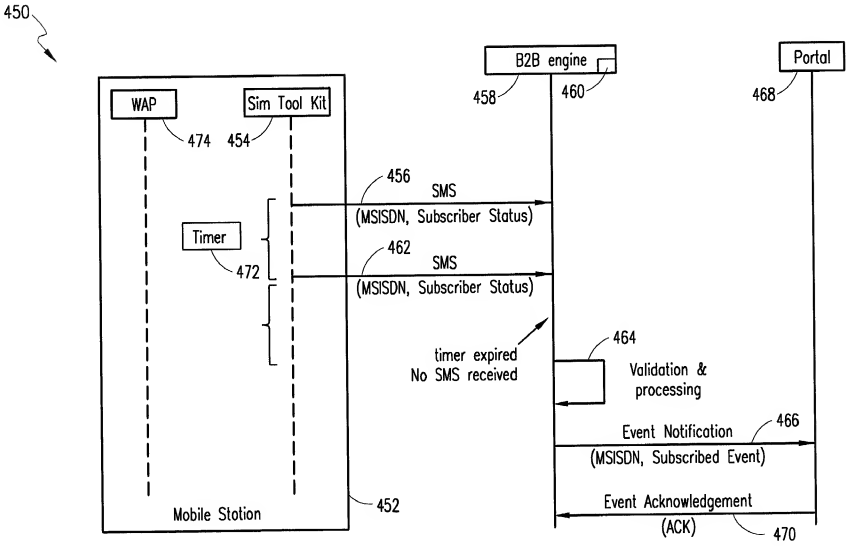
450
B2B engine
Portal
458
460
468
WAP
Sim Tool Kit
474
454
456
SMS
(MSISDN, Subscriber Status)
Timer
472
462
SMS
(MSISDN, Subscriber Status)
timer expired
No SMS received
464
Validation &
processing
Event Notification
466
(MSISDN, Subscribed Event)
Event Acknowledgement
(ACK)
470
Mobile Stotion
452

FIG. 10

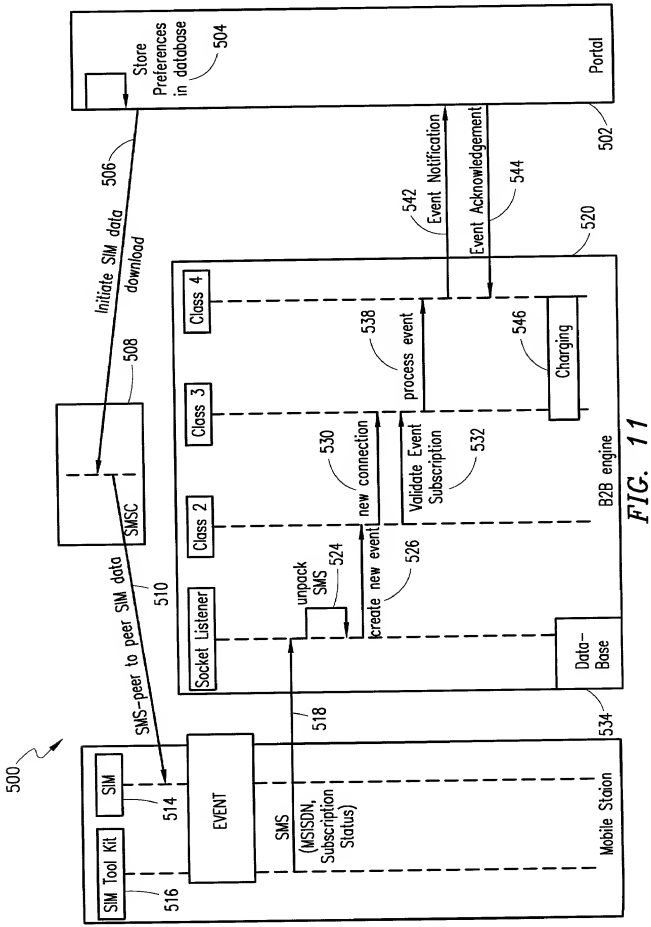
500
SIM Tool Kit
SIM
516
514
EVENT
SMS
(MSISDN, Subscription Status)
Mobile Station
518
534
SMS-peer to peer SIM data
510
SMSC
508
Initiate SIM data download
506
Store Preferences in database
504
Portal
502
Socket Listener
Class 2
Class 3
Class 4
unpack SMS
524
create new event
526
new connection
530
Validate Event Subscription
532
process event
538
Charging
546
Data-Base
B2B engine
520
542
Event Notification
544
Event Acknowledgement

FIG. 11

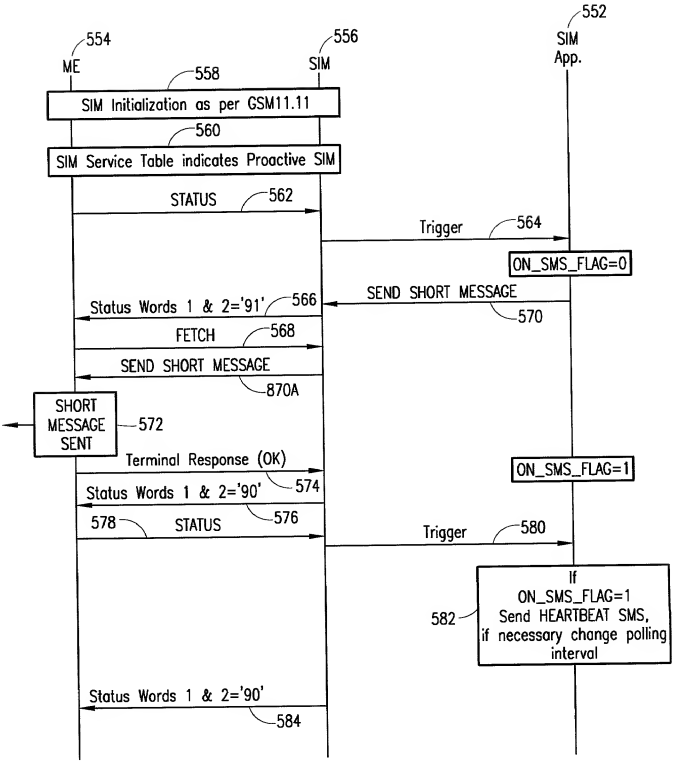
552
SIM App.
554
ME
556
SIM
558
SIM Initialization as per GSM11.11
560
SIM Service Table indicates Proactive SIM
STATUS
562
Trigger
564
ON_SMS_FLAG=0
SEND SHORT MESSAGE
570
Status Words 1 & 2='91'
566
FETCH
568
SEND SHORT MESSAGE
870A
SHORT MESSAGE SENT
572
Terminal Response (OK)
ON_SMS_FLAG=1
Status Words 1 & 2='90'
574
578
STATUS
576
Trigger
580
If ON_SMS_FLAG=1 Send HEARTBEAT SMS, if necessary change polling interval
582
Status Words 1 & 2='90'
584

FIG. 12

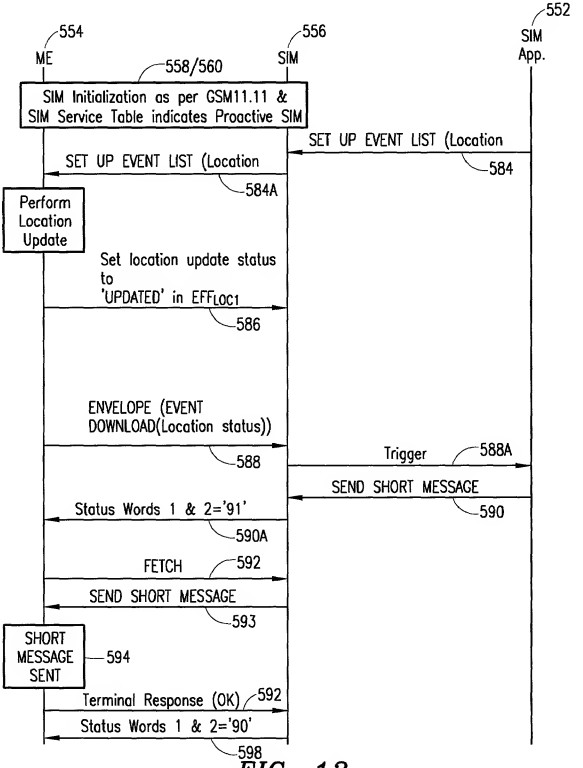

FIG. 13

09755942.051001

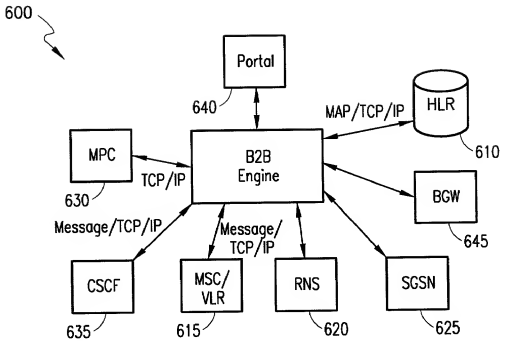
600
Portal
640
HLR
MAP/TCP/IP
610
MPC
630
TCP/IP
B2B
Engine
BGW
645
Message/TCP/IP
Message/
TCP/IP
CSCF
635
MSC/
VLR
615
RNS
620
SGSN
625

FIG. 14

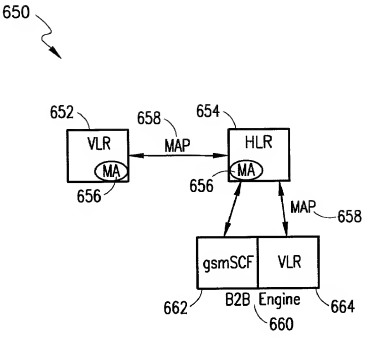
650
652
658
654
VLR
MAP
HLR
MA
MA
656
656
MAP
658
gsmSCF
VLR
662
B2B Engine
660
664

FIG. 15

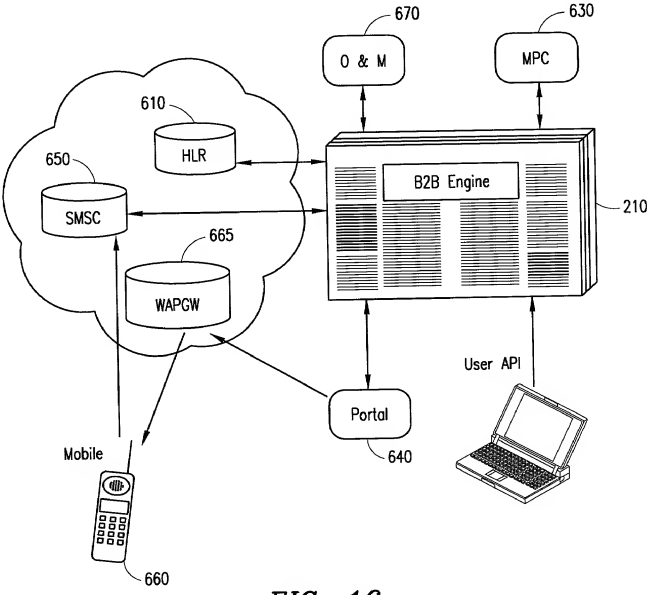
670
O & M
630
MPC
610
HLR
650
SMSC
B2B Engine
210
665
WAPGW
User API
Portal
640
Mobile
660

FIG. 16

TOPSO 2165760

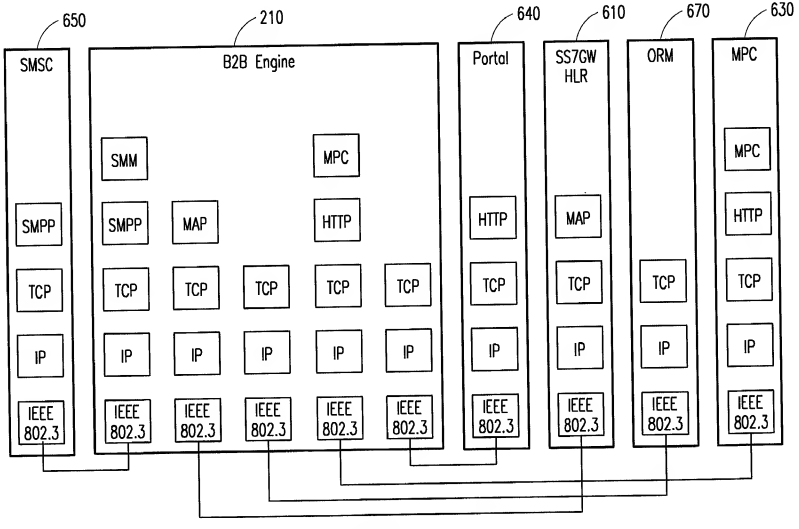

FIG. 17

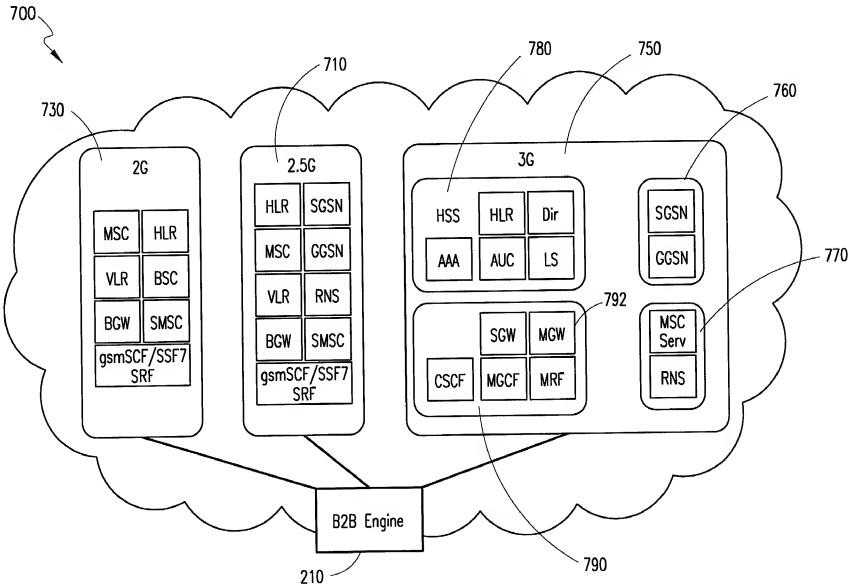
700
710
780
750
760
730
2G
2.5G
3G
MSC
HLR
VLR
BSC
BGW
SMSC
gsmSCF/SSF7
SRF
HLR
SGSN
MSC
GGSN
VLR
RNS
BGW
SMSC
gsmSCF/SSF7
SRF
HSS
HLR
Dir
AAA
AUC
LS
SGSN
GGSN
770
792
SGW
MGW
CSCF
MGCF
MRF
MSC
Serv
RNS
B2B Engine
210
790

FIG. 18